



## **WELCOME TO WARM WATER!**

We appreciate your business and look forward to providing you with years of relaxation and enjoyment. To ensure a seamless delivery of your new hot tub, please use these documents in preparation for the delivery of your new hot tub. Provided below are additional specifications for proper electrical setup.

### **Electric Installation**

There are many ways that a hot tub can be wired **depending** on the exact model and/or brand that you purchase. This means that pre-existing wiring and electrical setups are not sufficient **unless** it is the exact same setup and model, **assuming**: 1) the manufacturer has not made any changes to the tub, and 2) the existing wiring is still in excellent condition. **Electrical disconnect breakers must always be replaced when installing a new tub.** You will find the electrical schematics for your new hot tub further in this booklet. Wiring schematics should be given to your electrician to ensure proper wiring of your hot tub.

**115V hot tubs** have a cord with a GFCI end and **10 ft of usable cord**. The 20AMP receptacle box must be installed within **10 ft** of the hot tub prior to delivery and the hot tub must be the only appliance powered on that circuit.

GFCI end and attached cord



**220V hardwired hot tubs** need a “whip” (a flexible or hard **¾” conduit** containing wires as specified on your tub wiring schematic) from your subpanel to the electrical cutout on the hot tub. **You or your electrician MUST add additional length in wiring from the opening, or where the electrical cutout is shown as an entry point on the hot tub, PLUS the width and height to the equipment compartment for the final connection to be made.** EX. Grandee with back corner entry requires approximately 15’ of wiring to electrical board. There is an electrical board inside the equipment compartment where the wires are meant to be connected and installed to run the hot tub (**wires don’t just go into the electrical opening**). This ensures that your electrician will have enough slack to connect the wires inside the hot tub. Too long is better than too short (the excess can be wound up in the equipment compartment). If the wires are too short your electrician will have to run an entire new set of wires for the hot tub to run properly and we will not be able to start your hot tub on delivery. Please have your electrician reach out to your local store or salesperson for any clarity needed.



**WHIP**

**PLEASE NOTE (common error):** The neutral wire in the subpanel needs to be attached to the breaker, NOT onto the grounding bar. The hot tub may not start, or the breakers may trip if the neutral wire is not connected properly.

**PER WATKINS MANUFACTURING** – To ensure you will have an opportunity to use your spa soon after delivery, it is very important that the required electrical service has been installed. Unless otherwise stipulated by Allen Pools and Spas, **THIS IS YOUR RESPONSIBILITY.**

**IMPORTANT:** All electrical circuits must be installed by a qualified, licensed electrician. **You can NOT run a hot tub on an extension cord.**

## Considering converting your Hot Tub from 110V to 220V?

Currently the hot tub models that can be converted from 110V to 220V are: Prodigy 2022 and prior, Jetsetter, Beam, Pace, Stride, SX, TX, and all FreeFlow hot tubs. Review the Pros and Cons to see if converting the electrical of your hot tub is a good option for you. Please contact your salesperson if you would like to convert to 220V.

110V, 20A GFCI Cord  
115V 15 A GFCI Cord  
110V Plug N' Play

### Pros

- Ease of installation.

### Cons

- Hot tub heater does not operate when jets are in use. Can lose 2-3 degrees per hour depending on the ambient temperature. (110V averages 24hrs to heat depending on size)

Example of 110V- 15A:



220V 50A Subpanel

### Pros

- Hot tub heats 4X quicker than 110V (110V averages 24hrs.)
- Jets and heater operate at the same time. No temperature loss while using hot tub.

### Cons

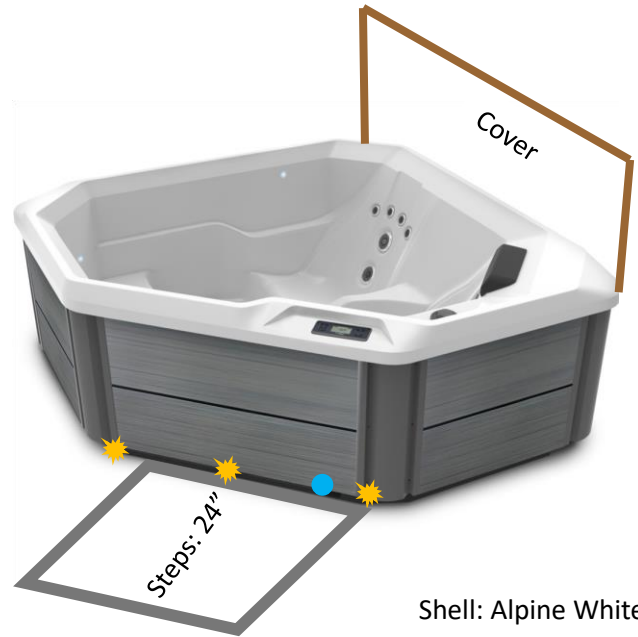
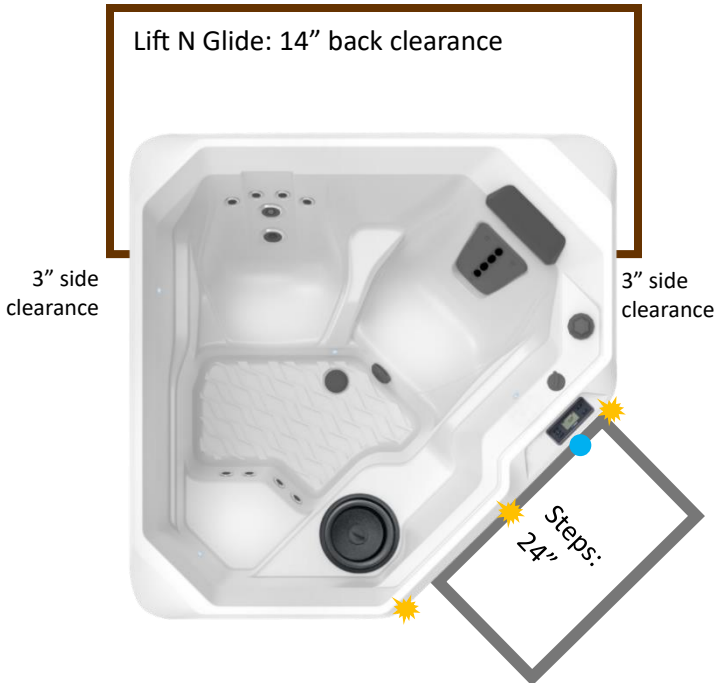
- Higher installation cost.
- Requires additional programming on installation of hot tub.

Example of 220V:





Hot Spot TX 230 Volt Converted



<b>Seating Capacity</b>	2 People
<b>Dimensions</b>	6' x 6' x 29" / 1.83 m x 1.83 m x 0.74 m
<b>Water Capacity</b>	190 Gallons / 720 Litres
<b>Weight</b>	635 lb/290 kg dry; 2,570 lb/1,165 kg filled

**11 Jets (all with stainless steel trim)**

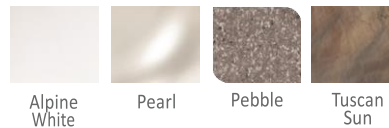
- Moto-Massage® Jet
- Directional Hydromassage Jet
- Rotary Hydromassage Jet
- Directional Precision® Jets

<b>Water Care System</b>	FROG® In-Line Cartridge Ready
<b>Effective Filtration Area</b>	30 sq. ft., top loading (1x PWK30)
<b>Energy Efficiency</b>	FiberCor® Insulation; Certified to California Energy Commission (CEC) and APSP 14 energy efficiency standards for portable spas
<b>Jet Pump</b>	Wavemaster® 4200; Two-speed, 1.0 HP Continuous Duty, 1.7 HP Breakdown Torque
<b>Circulation Pump (optional)</b>	SilentFlo 5000®
<b>Heater</b>	No-Fault® 4,000 W / 230 V
<b>Control System</b>	IQ 2020® 230 V / 50 amp, 60 Hz (includes G.F.C.I. protected sub-panel)

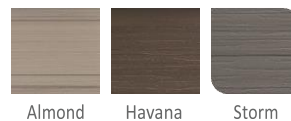
Shell: Alpine White  
 Cabinet: Storm  
 Drain ●  
 Electrical Access ★

<b>Cover</b>	3.5" to 2.5" tapered, 1.5 lb. density foam core, with hinge seal
<b>Cover Lifter</b>	Lift N Glide (F/B only)
<b>Steps</b>	Everwood® - Almond, Havana, Storm Polymer - Ash
<b>Lighting – Interior</b>	4 multi-color LED points of light, dimmable

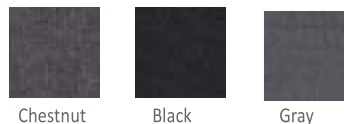
**Shell Colors**



**Cabinet Colors**



**Cover Colors**





## **SITE SELECTION AND PREPARATION**

**IMPORTANT:** Site selection and preparation are your responsibility. Carefully read these instructions and consult Allen Pools and Spas if you have any questions.

You probably have a spot picked out for your new spa, whether it's indoors or outdoors, on a patio or on a deck. Just make sure you check off each of the following:

- Always put your spa on a structurally sound, level surface WITHOUT pitching or shimming.** A filled spa can weigh a great deal. Make certain the location you choose can support the weight of your filled spa.
- Locate your spa away from any reflective surface or glass. The heat generated by some types of double-pane windows and reflective surfaces can cause serious damage to the exterior of the spa, including the siding and cover.
- Locate your equipment compartment, which houses all the electronic components, in a place where the water will drain away from it. Allowing water into the equipment compartment can damage the electronics or may result in tripping your house's circuit breaker.
- Leave yourself easy access to the circuit breakers in the subpanel.
- Never let water get into the subpanel. Your spa's subpanel is rain tight when installed correctly with the door closed.
- Leave access to the equipment compartment for periodic spa care and maintenance.

## **OUTDOOR AND PATIO INSTALLATION**

No matter where you install your new spa, it's important that you have a solid foundation to support it. Structural damage to the spa resulting from incorrect installation or placement on an inadequate foundation is not covered under the spa's limited warranty.

If you install the spa outdoors, a reinforced concrete pad at least 4" thick is recommended. The reinforcing rod or mesh in the pad should be attached to a bond wire (see your Owner's Manual). All Hot Springs spas may be installed onto a deck, provided that the load capacity of the deck is greater than the dead weight of the spa (see Deck Installation).

## **DECK INSTALLATION**

To be certain your deck can support your spa, you must know the deck's maximum load capacity. Consult a qualified building contractor or structural engineer before you place the spa on an elevated deck or indoors. To find the weight of your spa, its contents, and occupants, refer to the Spa Specification chart located further into these instructions. This weight per square foot must not exceed the structure's rated capacity, or serious structural damage could result.

## **INDOOR INSTALLATION**

Be aware of some special requirements if you place your spa indoors. Water will accumulate around the spa, so flooring material must provide a good grip when wet. Proper drainage is essential to prevent a build-up of water around the spa. When building a new room for the spa, it is recommended that a floor drain be installed. The humidity will naturally increase with the spa installed. Water may get into woodwork and produce dry rot, mildew, or other problems. Check for airborne moisture's effects on exposed wood, paper, etc. in the room. To minimize these effects, it is best to provide plenty of ventilation to the spa area. An architect can help determine if more ventilation must be installed.

Allen Pools and Spas can assist you with finding sources for local information such as zoning regulations and building codes.

## DELIVERY ACCESS

First, note the dimensions of your spa below. The dimensions are the measurements of the spa in the vertical position, laid on its side as shown in the drawing below.

Next, contact your dealer to find the height and width added by the delivery cart which the dealer will use to deliver your new spa. Use the height of the cart plus the dimension shown as 'H' to determine the vertical clearance required to pass the spa and cart. Use the width of the cart, or dimension 'W', whichever is greater, to determine the maximum width of clearance necessary. Use the length dimension 'L' when making any sharp turns to determine the minimum clearance required.

**NOTE:** It may be necessary to allow for additional over-head clearance if the spa (with cart) will be pushed up or down an incline or moved up or down a short flight of stairs.

Use the information below to determine the requirements for access to you desired location.

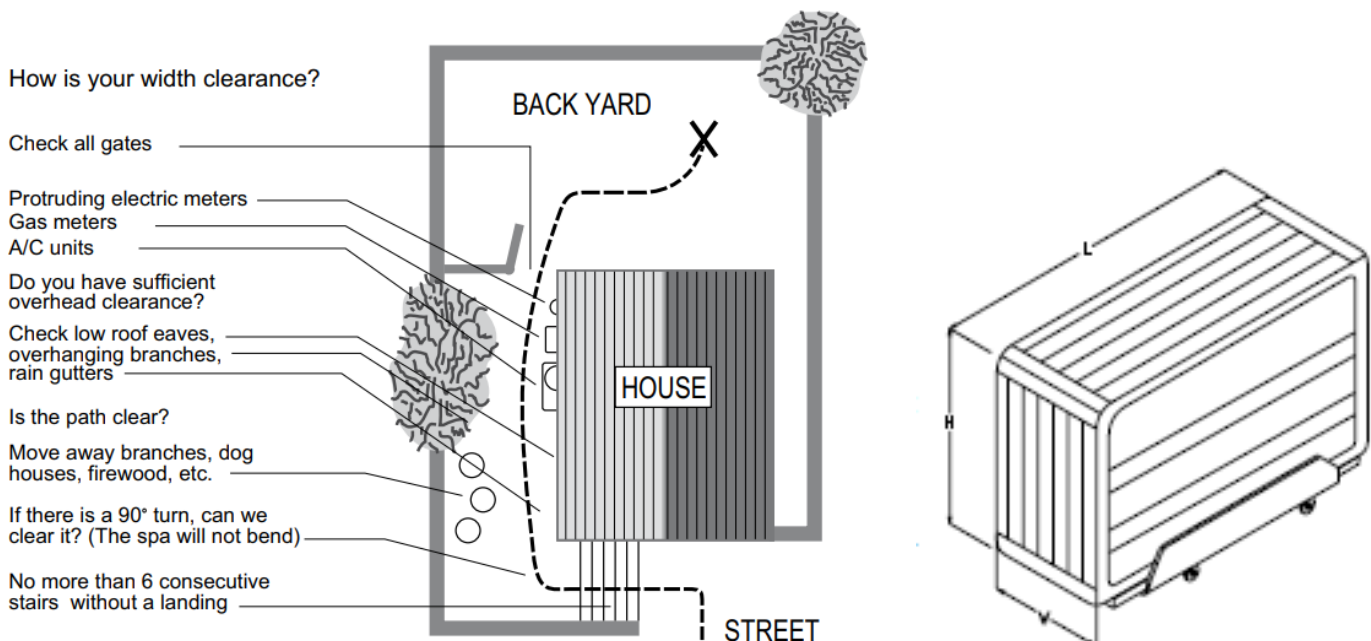
It may be necessary to remove a gate, part of a fence, or other moveable obstructions to roll the spa to its installation site. About 10% of the time, a crane is the only way to install the spa by lifting it to its final destination.

If the spa must be taken off the cart to go over a wall (either because the entry area is too narrow, the eaves are too low, the corner is too tight, or the stairway is too steep), a crane will be required. Don't be alarmed!

The crane has a truck-mounted boom which can fit right in your driveway. Crane operators are licensed and insured. For a charge, the crane operator will lift your spa over walls, buildings, or any other obstructions and place it as close to the installation site as possible. The Hot Spring spa delivery personnel will supervise the crane delivery and complete spa installation.

**NOTE:** if your spa delivery requires the use of a crane, you may be required to pay for the services at the completion of the delivery.

MODEL	WIDTH (W)	LENGTH (L)	HEIGHT (H)
TX (TX)	29"/74 cm	72"/183 cm	72"/183 cm



## GROUND PREPARATION

Your Hot Spring spa has been engineered to perform on several kinds of surfaces. While a concrete slab is best for long-term use, other foundations are acceptable so long as a level base is prepared prior to delivery.

**NOTE:** Have a reinforced concrete pad at least 4 inches (10 cm) thick or a deck that can withstand the pounds per square foot listed in the Spa Specification section.

## INSTALLATION NOTES:

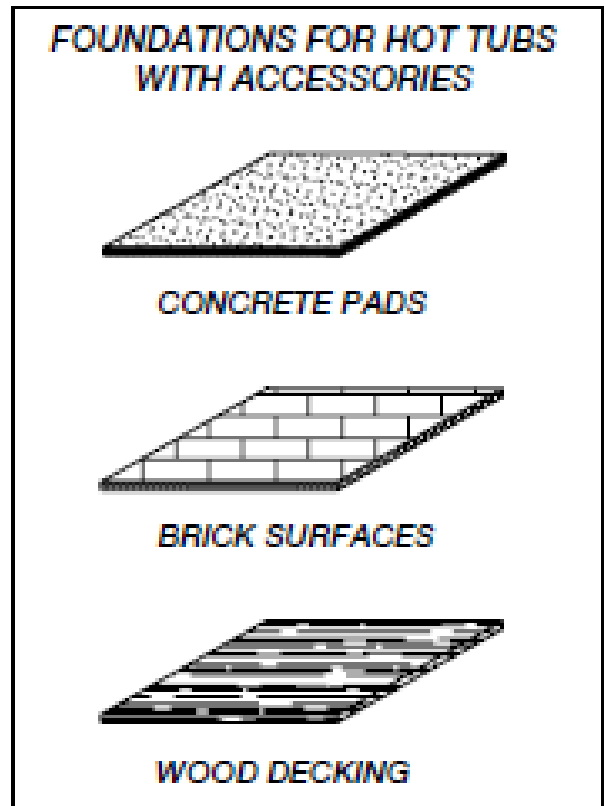
- If brick or wood decking is selected for the spa foundation, it should be placed and leveled below the entire spa to maintain even distribution of the spa weight.
- It is important to note that if bricks are used to distribute the weight of the spa there may still be a tendency to settle unevenly, resulting in an unlevel spa.
- Remember, placing the spa around grass or dirt may increase the amount of debris which is inadvertently brought into the spa on the user's feet.

If you are installing a deck or a gazebo for your spa, a solid foundation becomes mandatory. Placing them on any surface other than a single level pad could create problems with their installation. Pictured at right are a few of the recommended surfaces.

**As a homeowner, it is your responsibility to provide a suitable, level foundation for your spa. Keep in mind that most delivery crews are not equipped to level and prepare spa sites.**

If you are interested in having a concrete slab, brick surface, or a wooden deck installed, your Hot Spring dealer should be able to suggest a qualified, licensed contractor.

**NOTE: For the spa to operate properly and the internal plumbing to drain completely, you must ensure that the spa surface is level before installation. Shimming or point leveling is NOT supported or recommended by the manufacturer.**



## TX SPECIFICATIONS

FOOTPRINT	HEIGHT	HEATER	WATER CAPACITY	DRY WEIGHT	FILLED WEIGHT*	DEAD WEIGHT*	ELECTRICAL REQUIREMENTS
6' X 6' 183 cm X 183 cm	29" 74 cm	4000 Watts @ 230 Volts	190 gallons 720 litres	635 lbs 290 kg	2,570 lbs 1,165 kg	95 lbs/ft <sup>2</sup> 465 kg.m <sup>2</sup>	230 volt, 50 amp

\*NOTE: "Filled Weight" and "Dead Weight" include the weight of 2 adults at 175 lbs (80 kg) each



## **CRUSHED STONE PREP GUIDE:**

Crushed stone pads can be created by making a hole in the earth for stone-fill and framing, or by creating a raised structure on top of earth to fill and frame. **No matter which you choose, these guidelines need to be followed:**

- Size: Make sure the pad is large enough to accommodate your new tub and any accessories that will go with it, such as steps.
- Framing: Crushed stone pads **MUST** be framed whether your stone will be placed into a hole dug into the ground or placed in a raised structure above the ground. We strongly suggest using 6x6's or 4x4's to frame your gravel pad.
- Depth: **Your stone should be at least 4-6" deep (6" is the best choice);** whether it is being placed into an above ground structure or in-ground pad.
- Choosing Stone: Crushed stone should be no larger than 3/4". You may also choose to put sand in the first 2" and finish it off with crushed stone. **Never use river gravel or any stone over 3/4".**
- Leveling: **It is EXTREMELY important that your pad is 100% level!** Hot tubs must be placed on a level surface. This is also why framing is so important. Framing will keep your stone from doing things to make the tub become off-balance, such as shaking loose when the tub is on it or washing out during heavy rainfall.

### **NOTE:**

**!! GRANDEE, ENVOY, PULSE, AND PRISM CANNOT BE USED ON A CRUSHED STONE SITE !!**

**!! FREEFLOW LOW MOUNT LIFTER CANNOT BE USED ON CRUSHED STONE SITE !!**

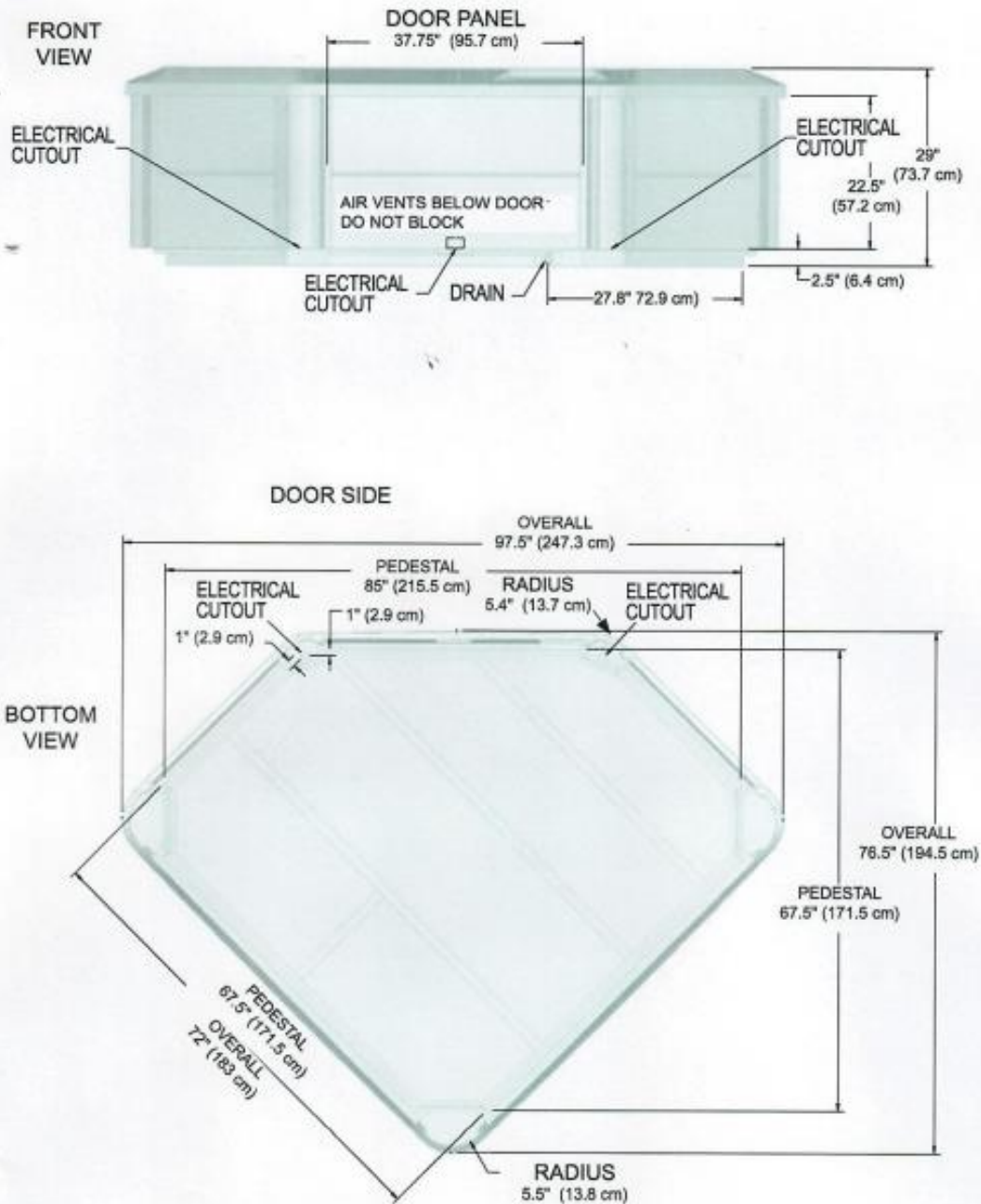
Example of a preferred stone pad:



# TX (Model TX)

## Dimensions

*NOTE: All dimensions are approximate; measure your spa before making critical design or pathway decisions. Configuration and location may change without notice.*



**NOTE:** Watkins Wellness recommends that the TX be installed on a minimum 4" (10 cm) thick reinforced concrete pad or structurally sound deck that is able to support the "dead weight" found in the spa specification chart.

**WARNING: The TX must not be shimmed in any manner.**

**\*Do not block Air Vents**





## **ELECTRICAL REQUIREMENTS**

To ensure you will have an opportunity to use your spa soon after delivery, it is very important that the required electrical service has been installed. Unless otherwise stipulated by your dealer, **THIS IS YOUR RESPONSIBILITY.**

**IMPORTANT:** All electrical circuits must be installed by a qualified, licensed electrician.

## **ADVANTAGE TO HAVING YOUR SPA CONVERTED**

- In the 115 volt configuration, either the heater, or the jet pump can operate, but they can't work at the same time. In the 115 volt system, as long as the jet pump is activated, the heater will not turn on. On the other hand, when the spa is converted to operate in the 230 volt configuration, the heater and jet pump can operate simultaneously.
- The heater will operate at 1000 watts when the spa is configured as a 115 volt cord-and-plug connected model, and at 4000 watts when the spa is configured as a 230 volt connected model heating your spa water faster.

## **230 VOLT CONVERTED TX (MODEL TX)**

The **TX** (model TX) can be converted to 230 volt operation with the addition of a subpanel and a control box wiring change. Consult your dealer before attempting to convert from 115 volt operation to 230 volt operation. **Any damage to the spa from improper conversion is not covered under the warranty.**

## **230 VOLT OPERATION REQUIREMENTS**

**NOTE: WATKINS WELLNESS REQUIRES THE USE OF A SUBPANEL TO SUPPLY POWER AND PROTECT THE SPA.** On the **TX 230 V** model, the 50 amp subpanel containing the GFCI breakers is included with the spa.

230 volt models require a 50 amp, single phase, 230 volt circuit breaker in the main electrical service panel.

All 230 volt **HOT SPRING** spas must be wired in accordance with all the applicable local electrical codes. All electrical work should be done by an experienced, licensed electrician. We recommend the use of appropriate electrical conduit, fittings, and wires for all circuits.

The subpanel requires a 50 amp, single phase, 230 volt, four wire service (two line, one neutral, one ground). The grounding conductor must not be less than #10 AWG. Refer to local codes and to NEC 250- 122 table.

Your electrician should mount the subpanel in the vicinity of the spa but it should not be closer than 5 feet (1.5 m) to the spa water edge (NEC 680-38 to 41-A-3).



Your spa contains a control box designed to operate at 230V, 60Hz. Installation of a 50 amp dedicated circuit is required for 230V operation. The control box must be hard wired directly to a subpanel protected by a Ground Fault Circuit Interrupter (GFCI).

All electrical connections must be made in accordance with the wiring information contained in this manual and on the back of the field wiring access panel of the control box. A licensed electrician should install a four-wire electrical service (two line voltages, one neutral, one ground) from the main electrical service panel to the subpanel.

**IMPORTANT:** All electrical connection to the control box must be accomplished by a qualified electrician in accordance with the National Electrical Code and in accordance with any local electrical codes in effect at the time and place of installation.

**INSTALLATION NOTE:** After the spa has been installed by the dealer's delivery crew, your electrician can connect the conduit from the subpanel to the spa's IQ 2020 Control Box and then complete the wiring connections in the control box.

**NOTE:** Complete step-by-step Installation and Wiring Instructions for all 230 volt Hot Spring models are included in the Owner's Manual and with each subpanel, which can be obtained from your dealer.

**IMPORTANT:** Allen Pools and Spas Service Technician must reconfigure spa using the soft jumpers to allow spa heater to run concurrent with jet pump.



**WARNING: REMOVING OR BYPASSING ANY GFCI BREAKER WILL RESULT IN AN UNSAFE SPA AND WILL VOID THE SPA'S WARRANTY!**

Converting from 115 volts to 230 volts changes the voltage supplied to the heater from 115 volts to 230 volts. The jet pump will continue to operate at 115 volts.

Have your licensed electrician wire subpanel from a 50A Main Service, then from subpanel into the spa's control box using the following illustration or use the wire diagram on the inside of the control box lid.

**IMPORTANT:** The subpanel must be placed within sight of the spa, at a minimum distance of 5 feet (1.5 m) away.

## **WIRING CONNECTIONS**

**IMPORTANT:** Fill the spa with water before turning on the power. Once your spa has been filled with water, turn it on and test all the circuit breakers.

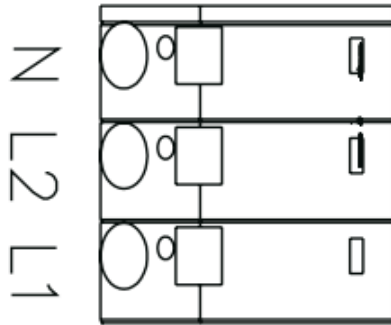
Each circuit breaker should be tested prior to each use. Here's how:

1. Push the "TEST" button on each GFCI breaker, and observe it click OFF.
2. Wait 30 seconds, then push the breaker switch to the OFF (down) position (to ensure that it has completely disengaged), then push the breaker switch to the ON (up) position. If you don't wait 30 seconds, the spa's power indicator may continue to blink- try again.

If any of the GFCI breakers fails to operate in this manner, your spa may have an electrical malfunction, and you may be risking electrical shock. Turn off all circuits and do not use the spa until the problem has been corrected by an authorized service agent.

# TX 230 VOLT CONVERTED

## Power Jumper Position



See Wiring  
Illustration  
below



230 VAC Wiring  
(50A Converted)

2 Position Power Jumper  
must be removed on the  
Terminal Block to operate  
230 VAC Spa Models

